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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/846,157

04/30/2001

Gary Goldman

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12/28/2005

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EXAMINER

LY, ANH VU H

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,157

Applicant(s)

GOLDMAN ET AL.

Examiner

Anh-Vu H. Ly

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 01, 2005 has been entered.

Claim Objections

2. Claim 1 is objected to because of the following informalities: in lines 11-12, "transmission of the class of service" should be changed to - -transmission bandwidth of the class of service- -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4, 6-8, 10, 13-14, 16, 18-20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Chapman et al (US Patent No. 6,304,552 B1). Hereinafter, referred to as Chapman.

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With respect to claims 1, 7, 13, and 19, Chapman discloses a method comprising:

receiving data segments of at least one class of service (Fig. 1, class 1 and class 2 traffic received at switches C and D) at each of a plurality of ingress line cards (Fig. 3, elements 302 and 304), each class of service having an associated guaranteed percentage of transmission bandwidth (col. 9, lines 40-50 – class 1 traffic has reserved bandwidth without overflow while class 2 traffic, which has reserved bandwidth with overflow);

marking a portion of the data segments of each class of service based on the associated guaranteed percentage of the transmission bandwidth of the class of service (col. 9, lines 53-55 – outgoing packets are tagged with HI or LO priority bit), such that if data transmitted from a class of service exceeds the associated guaranteed percentage of the transmission bandwidth of the class of service, then the number of data segments marked corresponds to the associated guaranteed percentage of the transmission bandwidth of the class of service (col. 9, lines 53-55 – outgoing packets are tagged with HI or LO priority bit. Herein, the marked data packets are packets corresponding to the associated guaranteed percentage of transmission bandwidth of the class of service only), and if data transmitted from a class of service is less than the associated guaranteed percentage of the transmission bandwidth, then all the data segments of the class of service are marked (col. 9, lines 30-32 – if the account result is less than its minimum bandwidth, the queue's priority will be HI. This implies that if the output rate of the queue is less than the allocated minimum bandwidth, all data packets, either class 1 or class 2 traffic, are marked as HI priority); and

preferentially transmitting the marked data segments from each class of service (col. 9, lines 62-67 – the controller will schedule data packet transmission for various queues so as to

move traffic from HI priority before LO priority. Herein, HI priority packets are packets of either from class 1 and class 2).

With respect to claims 2, 8, 14, and 20, Chapman discloses transmitting unmarked data segments from each class of service equally (col. 10, lines 25-28 - the controller 308 uses a round-robin scheduling policy to schedule packet release permissions for LO request traffic queues, as this ensures equal competition between all of these queues for any available spare bandwidth. Herein, tagged LO packets are considered as unmarked data segments by examiner since it is not in the same category of tagged HI packets).

With respect to claims 4, 10, 16, and 22, Chapman discloses that wherein the data segments are data types selected from a group consisting of frame relay packet, voice transmission data, IP packet, or circuit emulation service packet (col. 5, lines 65-67).

With respect to claims 6 and 18, Chapman discloses that wherein preferentially transmitting the marked data segments includes guaranteeing the marked data segments are transmitted prior to transmitting the unmarked segments (col. 9, lines 62-64 - the controller 308 will schedule data packet transmission for the various queues so as to move traffic from HI priority requests before traffic from LO priority requests. Herein, tagged LO packets are considered as unmarked data segments by examiner since it is not in the same category of tagged HI packets).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 5, 9, 11-12, 15, 17, 21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al (US Patent No. 6,304,552 B1) in view of Kusumoto (US Patent No. 6,975,630 B1).

With respect to claims 3, 9, 15, and 21, Chapman discloses that data packets include IP packets, Ethernet frames or data units in other arbitrary, proprietary format (col. 5, lines 65-67). Chapman does not disclose that data packets are ATM cells. Kusumoto discloses an ATM network for controlling ATM cells disposal according to its QoS (Fig. 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include ATM cells as data packets in Chapman's system, as suggested by Kusumoto, since ATM networks are well known in the art and are known for carrying different prioritized traffic.

With respect to claims 5, 11, 17, and 23, Chapman discloses that wherein marking includes implementing a must serve bit on the cells (col. 9, lines 53-55 - outgoing packets are tagged to reflect the queue's priority status, through the state of a single bit in the packet header).

With respect to claims 12 and 24, Chapman discloses that wherein preferentially transmitting the marked data segments includes guaranteeing the marked data segments are transmitted prior to transmitting the unmarked segments (col. 9, lines 62-64 - the controller 308 will schedule data packet transmission for the various queues so as to move traffic from Hi priority requests before traffic from LO priority requests. Herein, tagged LO packets are considered as unmarked data segments by examiner since it is not in the same category of tagged HI packets).

Response to Arguments

5. Applicant's arguments filed November 01, 2005 have been fully considered but they are not persuasive.

Applicant argues in page 10 that Chapman fails to disclose marking a portion of the data segments of each class of service. Examiner respectfully disagrees. Chapman discloses that the outgoing packets are tagged to reflect the queue's priority status, as function of output rate of the queue associated with a class of service, through the state of a single bit in the packet header. Therefore, the data packets or data segments are marked for each class of service, as either HI or LO.

Applicant further requests in page 12 that the examiner needs to cite references in supporting of ATM cells having different QoS or CoS. In response, please find the attached Patent No. 6,975,630 B1 (Kusumoto) in PTO form 892 supporting ATM cells having different QoS.

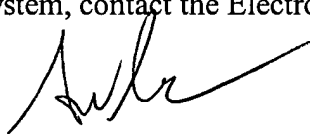
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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Avl' or similar, written in a cursive style.

avl